

Performing theories, transforming organizations

Luciana D'Adderio

Vern Glaser

Neil Pollock

University of Strathclyde

University of Alberta

University of Edinburgh

PERFORMING THEORIES, TRANSFORMING ORGANIZATIONS

A REPLY TO MARTI AND GOND

Marti and Gond (2018) have recently attempted to extend our understanding of how theories shape social reality by developing a process model of performativity and by articulating the boundary conditions that delimit that process. While we laud Marti and Gond's attempt to develop an analytical template to study the effectiveness and influence of theories, and fully share their overarching sentiment about the substantial potential for this kind of theorizing effort, we believe there are two fundamental flaws in their framework. First, Marti and Gond conceptualize a theory as an objectified, standalone entity. Second, they characterize the effects of a theory in terms of a linear, sequential process. In contrast to this view, we conceptualize a theory as inherently relational (i.e., they must be considered in conjunction with actors, artifacts, practices, and other theories) and characterize the effects of a theory in terms of dynamic, non-linear processes. We believe that conceptualizing theories relationally and characterizing the effects of theories dynamically enhances the generative potential of performativity for management research.

WHAT ARE THEORIES?

Marti and Gond define theories as “analytical systems that link different concepts in order to explain or predict empirical phenomena” (2018: 489). They treat such theories as isolated, objectified entities that are distinct from their context. For example, they represent theory as being essentially separate from other contingent factors (such as actors and artifacts) both in their process model (2018: 490) and in their depiction of boundary conditions (2018: 493).

In contrast, we posit that it is more useful to conceptualize theories as inherently relational. According to performativity scholars, theories do not exist in isolation but are instead performed within a broader assemblage that connects actors, artifacts, and practices (Callon,

1998). On this basis, D'Adderio and Pollock (2014: 1814) advocate relinquishing interpretations of theory “as a solid and discrete feature of products and/or organizations” and suggest that “[scholars] study [theory] as an emergent phenomenon, one which is deeply and inextricably entangled with...the sociomaterial practices that perform it.” In other words, an assemblage is a necessary and integral prerequisite for the performative realization of a theory and its embedded assumptions.

We illustrate this point by considering one of central examples in Marti and Gond's paper, MacKenzie and Millo's (2003) study of performativity. Marti and Gond (2018: 499) apply their model to show how the Black-Scholes theory stimulated experimentation and produced anomalies that led to the adoption of new practices in a “highly visible” context. However, their abstraction of the MacKenzie and Millo account glosses over a fundamental insight from the original study: understanding the influence of the Black-Scholes model on the market required a simultaneous consideration of both the theory and the contextual features which supported its realization. For instance, market actors needed to develop novel calculative practices to overcome “practical difficulties” associated with applying the theory and also had to establish a material infrastructure through which to calculate and communicate option pricing (MacKenzie & Millo, 2003: 124). As a consequence of these sociomaterial entanglements, actors adjusted the theoretical model to incorporate the Cox-Ross-Rubinstein model (MacKenzie & Millo, 2003: 128). This canonical example of performativity thus empirically shows that a theory is inextricably intertwined with the actors, artifacts, and practices that co-produce it.

A performative perspective that conceptualizes theories as relationally connected with assemblages of actors, artifacts and practices provides scholars with several useful affordances. First, a relational perspective on theories allows scholars to explain more effectively the central,

mediating importance of materiality (e.g., Latour, 2005) through artifacts such as market devices (Callon & Muniesa, 2005), calculative equipment (MacKenzie, 2009) or a 2x2 graph (Pollock & D’Adderio, 2012). Second, a relational perspective allows scholars to study the effects of competing theories—since a theory rarely operates independently of other theories (D’Adderio, 2017; D’Adderio & Pollock, 2014; Mason, Kjellberg, & Hagberg, 2015). Finally, a relational perspective allows scholars to study how a theory changes over time (MacKenzie, 2009), as putting a theory into practice or embedding a theory into material objects may fundamentally change the nature of the theory (Glaser, 2017; Pollock & Williams, 2016). We thus suggest that studying theories apart from their assemblage risks objectifying the theory while also preventing a deeper understanding of how theories may (or indeed may not) become performative.

WHAT ARE THE EFFECTS OF THEORIES?

Marti and Gond develop a process model which builds on MacKenzie’s (2006) classification of different types of performativity in order to delineate three sequential steps that reflect a linear progression—how (successful) theory leads to ‘experimentation,’ produces ‘anomalies,’ and consequently leads to a ‘practice shift’—that lead new theories to become self-fulfilling (Marti & Gond, 2018: 490). Additionally, they suggest that the self-fulfilling effects of theories are moderated by boundary conditions such as material devices, actors which perform as ‘powerful backers,’ visibility of effects, counteracting behaviors, actors’ sensegiving, and discontent with the status quo (Marti & Gond, 2018: 493). Marti and Gond thus conceptualize theory as a self-propelled entity that diffuses across space and time that generates impacts of varying effect due to encountering differential degrees of resistance (see also Latour & Woolgar, 1986: 50).

In contrast, we characterize the effects of theory in terms of non-linear, dynamic processes. We suggest moving beyond an essentialist, binary lens that sees theories as either ‘true’ or ‘false’ (Callon, 2007) towards a view that recognizes how theories shape social reality

by degrees and which, importantly, oscillates over time. Theories do not completely map onto or control real-world outcomes; there are always overflows that occur as theories are put into practice in situated actions (D'Adderio, 2008). Consequently, characterizing the effects of a theory requires us to understand how the theory frames actions, and then how the situated actions that do not fit with the theory go back and impact the theory.

MacKenzie and Millo's (2003) canonical example of performativity also illustrates this point. The authors show how, despite the model's success having been described as "a simple self-fulfilling prophecy [...] matters were [...] more complex, and more interesting than that" (MacKenzie & Millo, 2003: 123). After showing how the Black-Scholes model initially underpriced options and then became "incorporated into the CBOE's [Chicago Board Options Exchange] informational infrastructure" (MacKenzie & Millo, 2003: 127), they show that, subsequent to the stock market crash in 1987, the model changed again. This was because "the model's fit ha[d] again been poor, especially for index options, in the crucial matter of the relationship between strike price and implied volatility" (MacKenzie & Millo, 2003: 130). This had led to placing on top of the algorithms of the Cox-Ross-Rubinstein model "a layer that mixes market processes and practitioner know-how" (MacKenzie & Millo, 2003: 131). The notion of an actor-involved construction of "skew" is thus an integral part of the Black-Scholes performativity story that both involves understanding the theory relationally and recognizing that the performative effects of the theory shift over time.

We believe that characterizing the effects of theory as non-linear and dynamic is particularly important for performativity research for two reasons. First, by avoiding a linear, self-propelled model of a theory's effects, we can capture the more subtle and complex dynamics through which theories are performed such as different degrees of performative outcomes

(D’Adderio, 2008), performative struggles between different theories (D’Adderio, 2017; D’Adderio & Pollock, 2014), or the impact of shifts in relational dynamics between the distinct components of an assemblage (MacKenzie & Millo, 2003; see also Garud, Gehman, & Tharchen, 2018). Second, by avoiding the conceptualization of the effects of performativity as a binary outcome, we study the generative, unintended consequences of theories. For instance, Glaser, Fiss, and Kennedy (2016) show how market actors in the display advertising industry used financial market theories through practices of “generative bending” that created practices not previously used in either display advertising or financial markets. In short, by only studying the linear impact of a theory—rather than studying the dynamic, non-linear processes of design and redesign and the simultaneous production and consumption of theory—we can easily lose sight of the processes by which performative outcomes are generated, the diversity of the performative outcomes themselves, and how these outcomes oscillate over time.

TOWARDS A TRANSFORMATIONAL PERSPECTIVE ON PERFORMATIVITY

Marti and Gond have developed a view of performativity that relies on a conceptualization of theories as objectified, standalone entities and a characterization of the effects of theories that is linear and bounded. By contrast, our fieldwork (D’Adderio, 2017; D’Adderio & Pollock, 2014; Glaser, 2017; Glaser et al., 2016; Pollock & D’Adderio, 2012; Pollock & Williams, 2016) shows how theories are deeply entangled in and constituted by relational, sociomaterial dynamics, as well as how theories shape contexts and are in turn shaped over time. Consequently, we believe that management scholars can best develop a performativity perspective by conceptualizing theories in relational terms and by characterizing the effects of theory as dynamic and non-linear.

We propose that our distinct perspective on performativity allows for a richer exploration and theorization of a range of new and established organizational phenomenon. First, rather than limiting our analysis to the influence of nascent theories, our approach allows for the

investigation of the effects of both new and existing theories along their life-cycle or ‘biographies’ as they emerge, mature, and travel across actors, organizations, and institutional fields (e.g., Czarniawska & Sevón, 2005; D’Adderio & Pollock, 2014; Pollock & Williams, 2016). Second, rather than focusing solely on academic theories that feature a pronounced social and institutional gulf between those producing and those consuming theory, our perspective allows us to study the performance of ‘folk theories’ and other instruments as they shape business realities, as in the case of Gartner’s ‘Magic Quadrant’ (Pollock & D’Adderio, 2012) or popular strategy tools such as Boston Consulting Group’s “Growth-Share Matrix” (Ghemawat, 2009). Third, rather than reducing the effects of theories to external ‘anomalies,’ we can study how overflows—as an intrinsic and necessary byproduct of the application of theory to organizational life—reconfigure both organizations and theories themselves as in the case of invisible overflows or ‘errors’ (D’Adderio & Pollock, 2014).

In conclusion, although organizational scholars have traditionally utilized foundational constructs such as routines (Feldman & Pentland, 2003; Nelson & Winter, 1982), resources (Barney, 1991), and capabilities (Dosi, Nelson, & Winter, 2000), they have to date mostly neglected theories—despite the undisputed influence of theories on processes, organizations, fields, and institutions. For this reason, we welcome Marti and Gond’s contribution as an initial step towards understanding the effects of theories. However, our analysis points to the need for a much more sophisticated and nuanced approach to the study of theories. We believe that a transformational perspective on performativity that conceptualizes theories relationally and characterizes the effects of theory as dynamic and non-linear will encourage a deeper discussion of the effects of theories and their power to create and shape our world.

REFERENCES

- Barney, J. 1991. Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1): 99–120.
- Callon, M. 1998. *The Laws of the Markets*. Oxford, UK: Blackwell Publishers.
- Callon, M. 2007. What Does It Mean to Say That Economics is Performative? In D. MacKenzie, F. Muniesa, & L. Siu (Eds.), *Do Economists Make Markets? On the Performativity of Economics*: 311–355. Princeton, N.J: Princeton University Press.
- Callon, M., & Muniesa, F. 2005. Peripheral Vision: Economic Markets as Calculative Collective Devices. *Organization Studies*, 26(8): 1229–1250.
- Czarniawska, B., & Sevón, G. 2005. *Global Ideas: How Ideas, Objects and Practices Travel in the Global Economy* (1 edition). Malmö: Copenhagen Business School Pr.
- D’Adderio, L. 2008. The Performativity of Routines: Theorising the Influence of Artefacts and Distributed Agencies on Routines Dynamics. *Research Policy*, 37(5): 769–789.
- D’Adderio, L. 2017. Performativity and the Innovation-Replication Dilemma. In H. Bathelt, P. Cohendet, S. Henn, & L. Simon (Eds.), *The Elgar Companion to Innovation and Knowledge Creation*: 556–569. Edward Elgar Publishing.
- D’Adderio, L., & Pollock, N. 2014. Performing Modularity: Competing Rules, Performative Struggles and the Effect of Organizational Theories on the Organization. *Organization Studies*, 35(12): 1813–1843.
- Dosi, G., Nelson, R. R., & Winter, S. G. 2000. *The Nature and Dynamics of Organizational Capabilities*. Oxford [etc.]: Oxford University Press.
- Feldman, M. S., & Pentland, B. T. 2003. Reconceptualizing Organizational Routines as a Source of Flexibility and Change. *Administrative Science Quarterly*, 48(1): 94–118.

- Garud, R., Gehman, J., & Tharchen, T. 2018. Performativity as Ongoing Journeys: Implications for Strategy, Entrepreneurship, and Innovation. *Long Range Planning*, 51(3): 500–509.
- Ghemawat, P. E. 2009. *Strategy and the Business Landscape* (3 edition). Boston: Pearson.
- Glaser, V. L. 2017. Design Performances: How Organizations Inscribe Artifacts to Change Routines. *Academy of Management Journal*, 60(6): 2126–2154.
- Glaser, V. L., Fiss, P. C., & Kennedy, M. T. 2016. Making Snowflakes Like Stocks: Stretching, Bending, and Positioning to Make Financial Market Analogies Work in Online Advertising. *Organization Science*, 27(4): 1029–1048.
- Latour, B. 2005. *Reassembling the Social*. Oxford University Press.
- Latour, B., & Woolgar, S. 1986. *Laboratory Life*. Princeton, NJ: Princeton University Press.
- MacKenzie, D. 2006. *An Engine, Not a Camera: How Financial Models Shape Markets*. Cambridge, MA: MIT Press.
- MacKenzie, D. 2009. *Material Markets: How Economic Agents are Constructed*. Oxford: OUP Oxford.
- MacKenzie, D., & Millo, Y. 2003. Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange. *American Journal of Sociology*, 109(1): 107–145.
- Marti, E., & Gond, J.-P. 2018. When Do Theories Become Self-fulfilling? Exploring the Boundary Conditions of Performativity. *Academy of Management Review*, 43(3): 487–508.
- Mason, K., Kjellberg, H., & Hagberg, J. 2015. Exploring the Performativity of Marketing: Theories, Practices and Devices. *Journal of Marketing Management*, 31(1–2): 1–15.

Nelson, R. R., & Winter, S. G. 1982. *An Evolutionary Theory of Economic Change*. Belknap Press of Harvard University Press.

Pollock, N., & D'Adderio, L. 2012. Give Me a Two-by-Two Matrix and I Will Create the Market: Rankings, Graphic Visualisations and Sociomateriality. *Accounting, Organizations and Society*, 37: 565–586.

Pollock, N., & Williams, R. 2016. *How Industry Analysts Shape the Digital Future*. Oxford University Press.